

ENGLISH TRANSLATION OF THE INTERNATIONAL APPLICATION
FOR NATIONAL PHASE SUBMISSION

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Claims

1. Arrangement with an injection valve (7) with a nozzle body (8), which is disposed in a hole drilled (2) in a cylinder head (1) of an internal combustion engine (22), with the hole (2) opening out into a combustion chamber (21) of the internal combustion engine (22), with a bearing surface of the injection valve (7) being pretensioned against a bearing surface of the cylinder head (1) and the hole (2) being sealed, with the nozzle body (8) being disposed between the sealed bearing surfaces and the combustion chamber (21). characterized in that a sleeve (13) is arranged between the nozzle body (8) and the cylinder head (1) in the hole (2), a pressure sensor (16) is mounted in the hole (2) and the sleeve (13) is provided as a means of translation between the pressure in the combustion chamber (21) and the pressure sensor (16).
2. Arrangement in accordance with claim 1, characterized in that a lower end (14) of the sleeve (13) is assigned to the combustion chamber (21), that an upper end (15) of the sleeve (13) lies against the pressure sensor (16), and that the sleeve (13) is disposed to allow movement in the hole (2).
3. Arrangement in accordance with claim 2, characterized in that the pressure sensor (16) is retained on the injection valve (7) and that the upper end (14) is embodied in the form of an annular flange (17), that the flange (17) is disposed between an annular surface (5) of the cylinder head (1) and the pressure sensor (16).

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4. Arrangement in accordance with claim 3, characterized in that the pressure sensor (16) is surrounded by a sealing ring (18), that the sealing ring (18) is tensioned between the injection valve (7) and the cylinder head (1) and seals the hole (2).
5. Arrangement in accordance with one of the claims 1 to 4, characterized in that the pressure sensor (16) features a piezoelectric sensor element.
6. Arrangement in accordance with one of the claims 1 to 5, characterized in that the sleeve (13) is guided into the edge area of the hole (2) adjoining the combustion chamber (21).
7. Arrangement in accordance with one of the claims 1 to 6, characterized in that the sleeve (13) is covered at least partly on its outer and/or inner surface by a coating (19) which makes contamination more difficult.
8. Arrangement in accordance with one of the claims 1 to 7, characterized in that the sleeve (13) is covered at least partly on its outer and/or inner surface by a coating (19) which reduces friction.
9. Arrangement in accordance with one of the claims 1 to 8, characterized in that the pressure sensor (16) has an annular form and surrounds the nozzle body (8).